

MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM



*Maine Department of Health and Human Services
Maine Center for Disease Control and Prevention (Maine CDC)
(Formerly Bureau of Health)
11 State House Station
Augusta, Maine 04333-0011
Phone 1-800-821-5821 / Fax 207-287-7443*

****ADVISORY – Important Information****

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TO: All Academic Roles, All CDC Roles, All City and County Health Departments, All Healthcare Roles, All Lab Facilities, MEMA Duty Officers, Maine Medical Association, Northern New England Poison Control Center, State and Federal Agencies, All Required Roles

FROM: Dora Anne Mills, M.D., M.P.H., Public Health Director
Stephen Sears, M.D., M.P.H., State Epidemiologist

SUBJECT: Information for Clinicians on Lyme Disease

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Maine Center for Disease Control and Prevention (Maine CDC)
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Information for Clinicians on Lyme Disease

Lyme disease is the most common vector-borne disease in Maine and the second most commonly reported reportable infectious disease in Maine. Ticks are already active, and we expect the number of Lyme disease cases to increase as the weather continues to get warmer. May is Lyme Disease Awareness Month in Maine.

The purpose of this advisory is to:

- Provide general information regarding ticks and Lyme disease
- Remind providers to report cases of Lyme disease, including those diagnosed by erythema migrans
- Provide resources on diagnosis and treatment of Lyme disease

Background:

Lyme disease is a bacterial infection that is carried by *Ixodes scapularis* (the deer tick). Cases have increased each year in Maine, and occur in all 16 counties. Lyme disease is most common among school age children and middle age adults, and most infections occur during the summer months. As the weather continues to get warmer, more ticks will be out in the open, and we are likely to see more people with Lyme disease.

Symptoms:

The most common early symptom of Lyme disease is an expanding red rash (erythema migrans) that occurs at the site of the tick bite within 3-32 days after being bitten. Fever, joint and muscle pains, headaches, and other flu-like symptoms may also occur. Lyme disease is treatable, and the vast majority of patients reported to Maine CDC fully recover after receiving a course of antibiotics.

What to report:

Lyme disease is a reportable condition in the state of Maine. We request that all diagnosed erythema migrans rashes be reported to the state, as well as all positive lab diagnoses. Preferred laboratory testing is a two tier method, with an Enzyme ImmunoAssay (EIA) or Immuno Fluorescent Antibody (IFA) test followed by Western Blot. Cases can be reported by fax at 1-800-293-7534 or by phone at 1-800-821-5821.

What to do after a tick bite:

- Remove the tick properly, ideally using tweezers or a tick spoon.
- Identify the tick and the engorgement level, or length in time attachment. Tick identification is available through the Maine Medical Center Research Institute and more information can be found at <http://mmcri.org/lyme/submit.html>.
- Clean the area around the tick, and instruct the patient to watch for signs and symptoms for 30 days.
- Testing of the tick is not recommended for clinical purposes.
- Prophylaxis after a tick bite is **not** routinely recommended, but can be considered under specific circumstances including:
 - Tick has been identified as an engorged deer tick that has been attached for over 36 hours
 - Exposure occurred in an area where there is a high rate of infected ticks.

- Prophylaxis can be started with 72 hours. Even if prophylaxis is used, monitoring for symptoms for 30 days is recommended.
- Doxycycline treatment is not contraindicated.
- If all of the above conditions are met a single dose of 200 mg of doxycycline has been recommended for prophylaxis. Please consult current guidelines.

Treatment:

The regimens listed below are guidelines only and may need to be adjusted depending on a patient's age, medical history, underlying health conditions, pregnancy status or allergies. Consult an infectious disease specialist for the most current treatment guidelines or for individual patient treatment decisions.*

| Age Category | Drug | Dosage | Maximum | Duration, days (range) |
|--------------|-------------------|-------------------------------------|-----------------|------------------------|
| Adults | Doxycycline | 100 mg twice per day orally or IV | N/A | 14 (14-21) |
| | Cefuroxime axetil | 500 mg twice per day | N/A | 14 (14-21) |
| | Amoxicillin | 500 mg 3 times per day | N/A | 14 (14-21) |
| | | | | |
| Children | Amoxicillin | 50 mg/kg per day in 3 divided doses | 500 mg per dose | 14 (14-21) |
| | Doxycycline | 4 mg/kg per day in 2 divided doses | 100 mg per dose | 14 (14-21) |
| | Cefuroxime axetil | 30 mg/kg per day in 2 divided doses | 500 mg per dose | 14 (14-21) |

* Source: IDSA Lyme disease treatment guidelines, available at <http://www.journals.uchicago.edu/doi/abs/10.1086/508667>

Other tick borne diseases:

There are other diseases besides Lyme that can be carried by ticks in Maine, including Babesiosis and Anaplasmosis. A Physician's Reference Manual has been distributed to help with the signs and symptoms of the most common tick borne diseases in Maine. This guide can also be found on our website at: <http://www.maine.gov/dhhs/boh/ddc/epi/vector-borne/index.shtml> under Resources.

Additional information:

- For more information on tick borne diseases including Lyme: <http://www.maine.gov/dhhs/boh/ddc/epi/vector-borne/index.shtml>
- For IDSA Lyme disease treatment guidelines: <http://www.journals.uchicago.edu/doi/abs/10.1086/508667>
- Disease consultation and reporting available through Maine CDC at 1-800-821-5821